Claims

1. A method for producing a carrier for the determination of analytes, comprising the steps:
   (a) providing a carrier,
   (b) passing liquid with building blocks for synthesizing polymeric receptors over the carrier,
   (c) site- or/and time-specifically immobilizing the receptor building blocks on respective predetermined zones on the carrier and
   (d) repeating steps (b) and (c) until the desired receptors have been synthesized on the respective predetermined zones,
   characterized in that hapten groups are applied to the carrier before, during or/and after the synthesis of the receptors.

2. A method for the quality control of receptor syntheses on a carrier, comprising the steps;
   (a) providing a carrier,
   (b) applying in planar fashion hapten groups to the carrier surface,
   (c) carrying out a receptor synthesis on the carrier,
   (d) contacting with a hapten detection reagent which permits detection of hapten groups,
   (e) evaluating the hapten group detection on the carrier and
   (f) correlating the result of the evaluation with the quality or/and efficiency of the receptor synthesis.

3. A method for the quality control of receptor syntheses, comprising the steps:
   (a) providing a carrier,
   (b) carrying out a receptor synthesis on the carrier, with hapten groups being incorporated during the synthesis into the

receptor molecules at predetermined positions,

(c) contacting with a hapten detection reagent which permits detection of hapten groups,

(d) evaluating the hapten group detection on the carrier and

(e) correlating the result of the evaluation with the quality or/and efficiency of the receptor synthesis.

4. The method as claimed in any of claims 1 to 3, **characterized in that** a microfluidic carrier with channels, preferably with closed channels, in which predetermined zones with immobilized receptors are produced is used.

5. The method as claimed in any of claims 1 to 4, **characterized in that** the receptors are selected from biopolymers such as, for example, nucleic acids, nucleic acid analogs, proteins, peptides and carbohydrates.

6. The method as claimed in any of claims 1 to 5, **characterized in that** the receptors are selected from nucleic acids and nucleic acid analogs.

7. The method as claimed in any of claims 1 to 6, **characterized in that** a carrier is produced with a plurality of, preferably with at least 50 and particularly preferably with at least 100, different receptor zones.

8. The method as claimed in any of claims 1 to 7, **characterized in that** the hapten groups are selected from organic molecules having a molecular weight of up to 2,000, which are recognized by a specific binding partner through a high-affinity interaction.

9. The method as claimed in claim 8, **characterized in that** the hapten groups are selected from digoxin, digoxigenin, dinitrophenol and biotin or biotin analogs.

10. The method as claimed in any of claims 1 to 9, **characterized in that** the hapten groups are applied in a planar fashion to the carrier.

11. The method as claimed in any of claims 1 to 10, **characterized in that** the hapten groups are applied in a site-specific fashion to the carrier.

12. The method as claimed in any of claims 1 to 11, **characterized in that** the hapten groups are applied directly to the surface of the carrier.

13. The method as claimed in any of claims 1 to 12, **characterized in that** the hapten groups are inserted into spacer molecules which are disposed between the carrier surface and the receptors.

14. The method as claimed in any of claims 1 to 13, **characterized in that** the hapten groups are inserted at one or more positions into the receptors synthesized on the carrier.

15. The method as claimed in any of claims 1 to 14, **characterized in that** the hapten groups are applied reversibly.

16. The method as claimed in any of claims 1 to 14, **characterized in that** the hapten groups are applied irreversibly.

17. The use of hapten groups for controlling the synthesis of receptors on a carrier.